An Investigation of the Fused Electrolytic Baths of Cerium Chloride

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Thermal analysis was carried out for binary and ternary mixtures of salts cerium chloride (RCl_3), $CaCl_2$, $BaCl_2$, and NaCl. The cerium group chloride (RCl_3) used here contains 89% of cerous chloride and 11% of the chlorides of other cerium group metals. The melting point of RCl_3 is 796°C. The binary eutectic points are 78 mol.% of $CaCl_2$ at 613°C in the system of RCl_3–$CaCl_2$, 31% mol. of $BaCl_2$ at 683°C in the system RCl_3–$BaCl_2$ and 54 mol.% of NaCl at 499°C in the system of RCl_3–NaCl.

The ternary eutectic points are 30 mol.% of RCl_3, 49 mol.% of $CaCl_2$, 21 mol.% of $BaCl_2$ at 490°C in the system of RCl_3–$CaCl_2$–$BaCl_2$ 21 mol.% of RCl_3, 48 mol.% of $CaCl_2$, 31 mol.% of NaCl at 459°C in the system of RCl_3–$CaCl_2$–NaCl and 36 mol.% of RCl_3, 42 mol.% of NaCl, 22 mol.% of $BaCl_2$ at 373°C in the system of RCl_3–Nacl–$BaCl_2$.

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20. Studies on the Turnover of Phosphorus in Some Tissues with the Use of Radioactive Phosphorus P^{32}.*

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Radiophosphorus P^{32} in the form of phosphate ($Na_2HPO_4+NaH_2PO_4$) solution (pH 7.3–7.4) was injected into male mice subcutaneously, and the content and specific activity of P^{32} in the live tissue was examined. The radiophosphorus with the activity of 0.5–5.0 μc was injected to each mouse weighing about 20 grams. The animals were divided into four groups; (a) control, (b) with the experimental liver damage, (c) with methionine treated, and (d) with liver damage and methionine treatment (Table 1). The liver damage was done by the subcutaneous injection of carbon tetrachloride 24 hours before the P^{32} injection. The methionine treatment was performed by the subcutaneous injection of 40 mg l-methionine to each mouse simultaneous with P^{32} administration. The animals were sacrificed three and five hours respectively after the P^{32} administration, and P^{32} content of the acid soluble, the lipid, and the residual fraction of the liver homogenate was measured by the G–M counter. The radiosphorus content of various fractions was as follows (Table 1).